CALFED

SACRAMENTO-SAN JOAQUIN RIVER DELTA REGIONAL IMPLEMENTATION PLAN

The mission of the CALFED Bay-Delta Program is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system.

OVERVIEW

The CALFED Bay-Delta Program is an unprecedented effort to build a framework for managing California's most precious natural resource: water. California and the Federal government in partnership are launching the largest, most comprehensive water management program in the world. This is the most complex and extensive ecosystem restoration project ever proposed. It is also one of the most intensive water conservation efforts ever attempted. It is the most far-reaching effort to improve the drinking water quality of millions of Californians as well as an unprecedented commitment to watershed resources. And it is the most significant investment in storage and conveyance in decades.

The Record of Decision (ROD), August 28, 2000, addresses these efforts through a sustained, long-term effort by the CALFED Agencies and stakeholder groups.

The CALFED Bay-Delta Program is a cooperative, interagency effort of 22 State and Federal agencies that have management or regulatory responsibilities for the Bay-Delta. The CALFED Program is a collaborative effort involving representatives of agricultural, urban, environmental, fishery, and business interests; Native American tribes; and rural counties who have contributed to the process.

The mission of the CALFED Bay-Delta Program is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system.

The objectives of the CALFED Bay-Delta Program are to:

- Provide good water quality for all beneficial uses.
- Improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species.
- ♦ Reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system.
- Reduce the risk to land use and associated economic activities, water supply, infrastructure and the ecosystem from catastrophic breaching of Delta levees.

The CALFED Program takes a broad approach to addressing the objectives, recognizing that many of the problems and solutions in the Bay-Delta system are interrelated. Problems in any one program can only be solved effectively by addressing their impacts on other Programs in the region.

The CALFED Program and the CALFED Agencies are approaching many ecosystem and water management issues from a regional perspective. The regions, which include their respective watersheds, are the Sacramento Valley, the San Francisco Bay Area, the Sacramento-San Joaquin River Delta, the San Joaquin Valley, and Southern California. Although each region raises unique ecosystem and water management issues, each region's issues affect the health and function of the Bay-Delta system as a whole. Those regional issues, therefore, need regional solutions that contribute to overcoming the challenges facing the Bay-Delta system. In crafting regional solutions, the CALFED Program has also identified and considered the other, independent actions taken by Federal, State and local agencies operating outside the CALFED Program.

This Implementation Plan is for the Sacramento-San Joaquin River Delta Region.

DELTA REGIONAL PROGRAM GOALS

The goals of program implementation in the Delta Region are to:

- Restore ecosystem health.
- Improve in-Delta water quality and supply reliability.
- Improve export water quality and supply reliability.
- ♦ Maintain levee stability.
- ♦ Minimize agricultural land use impacts.
- Incorporate regional recreation elements.

The first four goals were drawn from the CALFED interrelated program objectives stated in the ROD and from the Programmatic EIS/EIR. Responding to input from stakeholders and others provided over the past year, the agricultural and recreation goals have been added because they are critical to successful implementation in the Delta.

DELTA REGIONAL PROGRAM IMPLEMENTATION STRATEGY

The strategy for achieving those goals is to:

- Ensure broad Program planning and implementation, achieving mutual benefits between Programs.
- Implement south Delta improvements to ensure availability of water of adequate quantity and quality to south Delta agricultural diverters while improving flexibility of Delta exports.
- ♦ Employ a comprehensive Delta ecosystem approach, a landscape perspective, and adaptive management in implementing the Ecosystem Restoration Program (ERP) in the Delta.
- ♦ Implement measures in the Delta to enhance fisheries protection and benefit water quality and conveyance in the inner Delta.
- ♦ Implement a comprehensive levee system improvement strategy.
- Protect and restore Delta habitat integrated with flood management, storage, conveyance and levee programs.
- Assess incremental and cumulative affects of water quality and supply actions in the Delta.

DELTA REGIONAL PROGRAM IMPLEMENTATION BENEFITS

The benefits to the Delta Region from achieving the goals are:

- ♦ Assurance of good water quality for Delta users.
- A long-term levee strategy to assure continued security for Delta land uses and water quality.
- Improvements in Delta ecosystem health, implemented with a commitment to give first preference to ecosystem restoration on public lands or through conservation easements rather than land purchase.
- Development of an integrated strategy to enhance water quality and supply reliability.

DELTA REGIONAL PROGRAMS

The CALFED Program includes many implementation activities in the Delta. Some of these activities are well defined, while others have been described only at the programmatic level and still need considerable definition or refinement before implementation. Nevertheless, activities integrate into a common fabric that must proceed as whole and with proper recognition of interrelationships between the elements. CALFED seeks the participation of Delta interests in the development and refinement of CALFED Delta actions so that these actions are compatible with current and planned Delta activities and economic pursuits, while meeting CALFED objectives. In particular, CALFED wants to ensure that its actions complement enhanced Delta recreation and help to preserve the economic viability of Delta agriculture. Proper definition and sequencing of work is necessary to ensure agency, stakeholder, and public support.

The chart below displays and summarizes the regional strategy for program implementation in the Delta Region.

Regional Strategy Concept for Program Implementation in the Delta

Early and Continuous Agency, Stakeholder, and Public Involvement

- · Participation of agencies, stakeholders, and public for input and feedback through new and existing forums
- · Coordination with regional and local agencies (e.g., Delta Protection Commission, South Delta Water Agency)

Consideration of the Delta as a Whole

Agricultural Land Use and Recreation coordination with ecosystem restoration, conveyance, levees, and storage programs

Levee Integrity Program

- Levees planned to meet conveyance and flood control needs
- Levee construction and borrow and disposal areas consistent with ERP
- Coordinated ERP and levee actions to reduce subsidence
- Levee dredge permitting to benefit other programs

Storage Program

Conveyance, ERP, and In-Delta Storage coordinated for compatible uses

Conveyance Program

- Flood control coordinated with levees and ERP
- Dredging, borrow, and disposal areas consistent with ERP

Drinking Water Quality Program

- Actions to enhance Delta water quality and benefit other programs
- Environmental water quality actions
- ERP, storage, and conveyance actions
- Drainage management
- Recirculation to enhance San Joaquin River quality

Ecosystem Restoration Program (ERP)

- ERP actions ahead of or concurrent with Delta improvements
- Consistent with ERP strategic goals
- Coordinated restoration with levees, storage, conveyance programs
- Focused effort to reduce SWP fisheries impacts and create fisheries resources
- Island restoration feasibility study
- Stockton Ship Channel dissolved oxygen enhancement

Recreation Program

 Early coordination of recreation with conveyance and storage programs

Agricultural Land Use

- Protection of water levels and quality in Delta region
- Area cap on agricultural lands conversion

Science Program

· Performance measures for effective science monitoring and interpretation, and adaptive management

Comprehensive Tracking System

· Status of expenditures and schedules against established targets. Performance measures against CALFED objectives.

DELTA PROGRAM INTERRELATIONSHIPS

The Program Elements are interrelated and interdependent.

The *Ecosystem Restoration Program* (ERP) is the primary mechanism for achieving the CALFED goal of restoring ecosystem health: "improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species." Early actions will precede or run concurrent with the implementation of other Program Elements. But over the long run, a successful *ERP* is reliant on adequate water supply and quality (provided through the *Conveyance*, *Storage*, *Drinking Water Quality* Program Elements). And there are significant opportunities to append *ERP* actions to *Levee*, *Storage*, and *Conveyance* actions.

Implementation of the *Conveyance* and *Storage* Program Elements meet the goal of *preserving Delta agricultural water supply* while *improving in-Delta water quality*. Preserving agricultural water supply and improving in-Delta water quality enhances the flexibility of Delta exports. *Conveyance* and *Storage* must be closely coordinated for compatible uses and be consistent with *ERP* goals.

Implementation of the *Levee System Integrity* Program Element meets the goal of *maintaining levee stability* and can be achieved consistent with the *ERP* goal. Levees also help achieve the goal of *improving water quality* for Delta and export users and the *ERP*. A levee failure allows salt water to inundate land that is below sea level—seriously affecting Delta water supplies.

Implementation of the *Drinking Water Quality* Program Element achieves the goal of improving in-Delta water quality. In addition to *Conveyance*, *Storage*, and *ERP*, *Drinking Water Quality* actions provide additional water quality assurances.

Implementation of the *Recreation Development* activities must be in concert with *ERP*, *Conveyance*, *Storage*, and *Levee* elements.

Implementation of all Program Elements must help to preserve the economic viability of Delta *agriculture*. It is particularly important to make *ERP*, *Conveyance*, *Storage*, and *Levee* actions compatible with agricultural uses to the extent possible.

The *Science* Program Element brings world-class science to all elements of the program. Performance measures and indicators for each Program Element will track progress.

An Adaptive Management approach is the basis for much of the CALFED Program. There are many complex interrelated problems to be addressed with imperfect knowledge. As such, actions are taken based on the best available information from monitoring and research in order to refine future actions or investments. This approach depends on credible and objective scientific review and evaluation to ensure that available, objective information guide decisions.

While much of the need for science review often focuses on habitat restoration efforts, the *Science* Program Element will cover all Program Components.

As stated in the Implementation Memorandum of Understanding (MOU), CALFED Agencies remain committed to encouraging the public to work with the Policy Group, State and Federal implementing agencies, and scientific and technical advisors in the design, implementation, and evaluation of the CALFED Program.

Agency, Stakeholder, and Public Involvement will occur in Delta Program implementation through the Bay-Delta Public Advisory Committee; the Delta Regional Outreach Forum; the Delta Protection Commission; a wide variety of Program Element and local work groups; public hearings, meetings,

and workshops; and an extensive, complementary public information effort. Working with stakeholders as the clients is key to successful program implementation.

Because of the general and programmatic nature of the Programmatic EIS/EIR, it is not possible to specifically define the land use changes that will result from implementing the CALFED Program. The extent and specific locations of the Program actions have yet to be decided. Nevertheless, to evaluate the environmental consequences of Program actions at a programmatic level, it was necessary to estimate the amount of land that *could* be disturbed by Program actions (see section 3.7). Most of that land is in agriculture. The Program identified the *maximum* ranges of acreage that could be affected by the various Program elements to give decision makers and the public a sense of the "worst-case" land use impact. The following Program Elements could affect agricultural land use: the Ecosystem Restoration Program, the Levee System Integrity Program, the Storage Program, and the Conveyance Program. No other CALFED Program Element in the Delta region is likely to affect agricultural land use in the Delta.

PURPOSES OF THE DELTA REGIONAL IMPLEMENTATION PLAN

The overall purpose of this Delta Regional Implementation Plan is to guide the Delta region through program implementation, giving specifics on implementation progress from planning, to design, to construction, and finally to operation. To help achieve this purpose, this Implementation Plan will be a "living document." We will regularly update appropriate sections to reflect the up-to-date status of implementation. As Program Elements and projects development, this Implementation Plan will incorporate or reference relevant documents such as work plans.

Additional purposes of this Implementation Plan are to:

- Help provide project linkages between and within Program Elements.
- ♦ Help keep Delta region Program Elements moving ahead in a balanced manner to fulfill all regional goals concurrently.

AUDIENCES OF THE DELTA REGIONAL IMPLEMENTATION PLAN

There are several audiences for this Delta Regional Implementation Plan to achieve the purposes stated above:

- ♦ The Delta Region Program Implementation Manager to help him manage overall implementation to meet ROD commitments, ensure necessary program linkages, stay on schedule, and stay within budgets.
- Program Element Managers to help them meet ROD commitments, ensure necessary program linkages, stay on schedule, and stay within budgets for the projects under their oversight.
- Project Managers (Federal, State, Regional, Local) to help them meet ROD commitments, ensure necessary linkages with other projects, stay on schedule, and stay within budgets for their projects.
- ♦ The CALFED Federal/State Management Group to help them recommend actions to the Policy Group in overseeing implementation of the CALFED Program in the Delta region.
- ♦ The Bay-Delta Public Advisory Committee to help it carry out its responsibilities in advising on Delta region programs.
- ♦ The Delta Protection Commission to help it fulfill its legislative mandate to oversee orderly, balanced conservation and development of land resources in the Primary Zone of the Legal Delta.

• Regional, local, stakeholder, media, and other public interests to give them up-to-date information on implementation progress and where to go for more information.

SOURCES OF THE DELTA REGIONAL IMPLEMENTATION PLAN

The basic sources for this Delta Regional Implementation Plan are the ROD (August 28, 2000), the Implementation MOU (August 28, 2000), the Final Programmatic EIS/EIR (July 2000), and current Program Element and project work plans (some still in draft). We have tried to reference those documents where applicable. In some cases, we have combined information from the ROD, MOU, and/or EIS/EIR to apply the information more specifically to the Delta region.

If the reader notes any inconsistency between this Delta Regional Implementation Plan and the ROD, MOU, and/or EIS/EIR, he or she should promptly advise the Delta Region Program Implementation Manager of the inconsistency. In any event, the ROD, MOU, and EIS/EIR are controlling. The Implementation Plan is a guide to implementing their commitments in the Delta.

FORMAT AND CONTENTS OF THE DELTA REGIONAL IMPLEMENTATION PLAN

Because this Implementation Plan is to be a "living document," we have formatted into a loose-leaf binder with tabs and separately numbered sections. This will greatly facilitate the regular updates to appropriate sections without having to reproduce the entire documents. We will send updated pages to holders of this document for them to insert in the appropriate places, replacing the out-of-date pages.

Sections 1 - 2 of this Delta Regional Implementation Plan set the stage by presenting contextual information on the overall CALFED Program. This is important in guiding implementation actions in the Delta.

- ♦ Section 1 summarizes information on the Bay-Delta Accord; the CALFED mission, objectives, and principles; program implementation; program interdependency; and program oversight.
- ♦ Section 2 summarizes the implementation provisions of the CALFED Bay-Delta Program ROD and Final Programmatic EIS/EIR. It also summarizes the Environmental Justice Plan and the Guide to Regulatory Compliance for Implementing CALFED Actions.

Sections 3 - 10 focus on the Delta region.

- Section 3.0 presents the implementation principles and strategies for the Delta region and summarizes regional implementation management; and agency, stakeholder, and public involvement.
 - Section 3.1 presents the Delta Implementation Plan for the Conveyance Program.
 - Section 3.2 presents the Delta Implementation Plan for the Drinking Water Quality Program.
 - Section 3.3 presents the Delta Implementation Plan for the Storage Program.
 - Section 3.4 presents the Delta Implementation Plan for the Levee System Integrity Program.
 - Section 3.5 presents the Delta Implementation Plan for the Ecosystem Program.
 - Section 3.6 presents the Delta Implementation Plan for the Science Program.
 - Section 3.7 integrates critical land-use activities within the Delta (agriculture and recreation) into Plan implementation.
 - Section 3.8 presents the scheduling, logic, and phasing of work for Delta program
 implementation, presenting detailed schedule diagrams and a complete project listing.

01/31/02 Draft Delta Regional Implementation Plan

- Section 3.9 summarizes program costs (budgeted, expended, and forecasted to date).
- Section 3.10 summarizes the Delta implementation program tracking system.

TABLE OF CONTENTS

1.	CAL	FED Background	1-1
	1.1	Bay-Delta Accord	1-1
	1.2	Mission, Objectives, and Principles	1-1
		1.2.1 Mission Statement	1-2
		1.2.2 Interrelated Program Objectives	1-2
		1.2.3 Solution Principles	1-2
	1.3	Program Implementation	
	1.4	Program Oversight	1-3
2.	Impl	ementation of the Record of Decision MOU & Programmatic EIR/EIS	2-1
	2.1	Implementation Memorandum of Understanding (MOU)	2-1
		2.1.1 CALFED Management Direction and Oversight	2-1
		3.1.2 CALFED Staff Oversight and Coordination	2-4
	2.2	Programmatic EIR/EIS	
		2.2.1 Tiering of Specific Implementation Plans	2-9
		2.2.2 Multi-Species Conservation Strategy (MSCS)	2-10
		2.2.3 Action Specific Implementation Plans (ASIPs)2.2.4 Comprehensive Monitoring, Assessment and Research (CMARP)	2-11 2-13
		2.2.4 Completensive Monitoring, Assessment and Research (CMARF) 2.2.5 Section 404 Compliance	2-13 2-13
		2.2.6 Permit Clearinghouse	2-13
		2.2.7 Complementary Actions	2-13
		2.2.8 Local Implementation	2-14
	2.3	Finance Plan	2-14
		2.3.1 Program and Funding Categories	2-14
		2.3.2 Funding Sources and Finance Mechanisms	2-15
	2.4	Environmental Justice Workplan	
		2.4.1 Workplan Sections	2-21
		2.4.2 Potential Environmental Justice Issues Related to the Delta Region	2-21
		2.4.3 Forums for Helping to Resolve Environmental Justice Issues	2-22
3.0	Prog	ram Implementation in the Delta Region	3.0-1
	3.0.1	Regional Implementation Principles	3.0-1
	3.0.2	Delta Regional Strategies	3.0-2
	3.0.3	Delta Regional Implementation Plan Program Element Listing	3.0-4
	3.0.4	Regional Implementation Management	3.0-5
	3.0.5	Delta Agency, Stakeholder, and Public Involvement	3.0-6
3.1	Conv	yeyance Program	3.1-1
	3.1.1	Purpose/Goals	3.1-1
	3.1.2	Program Description	3.1.1
		Oversight, Management, and Support Responsibilities	
		Current Conveyance Projects	

01/31/02 Draft Delta Regional Implementation Plan

	3.1.4.1 South Delta Improvement Program	3.1-4
	3.1.4.2 Temporary Barriers Program	3.1-6
	3.1.4.3 Agriculture Diversion Extension	3.1-7
	3.1.4.4 Tracy Fish Test Facility	3.1-8
	3.1.4.5 Recirculation Feasibility Study	3.1-9
	3.1.4.6 Lower San Joaquin River Flood Control	3.1-10
	3.1.4.7 North Delta Flood Control and Ecosystem Restoration	3.1-11
	3.1.4.8 Delta Cross Channel and Screened Through Delta Facility 3.1.4.9 CVP/SWP South Delta Intake Intertie	3.1-12 3.1-14
	3.1.4.10 CVP/SWP South Delta Aqueduct Intertie	3.1-14
	3.1.4.11 San Luis Reservoir Low Point	3.1-16
3.2	Drinking Water Program	3.2-1
	3.2.1 Purpose/Goals	3.2-1
	3.2.2 Program Description	3.2-1
	3.2.3 Oversight, Management, and Support Responsibilities	3.2-2
	3.2.4 Current Water Quality Projects	3.2-3
	3.2.4.1 Source Controls in the Delta and Its Tributaries	3.2-4
	3.2.4.2 Old River and Rock Slough Water Quality Action	4.2-5
3.3	Storage Program	3.3-1
	3.3.1 Purpose/Goals	3.3-1
	3.3.2 Program Description	3.3-1
	3.3.3 Oversight, Management, and Support Responsibilities	3.3-1
	3.3.4 Current In-Delta Storage Projects	3.3-2
	3.3.4.1 In-Delta Surface Storage	3.3-3
	3.3.4.2 City of Tracy Aquifer Storage and Recovery Project	3.3-4
4.4	Levee System Integrity Program	3.4-1
	3.4.1 Purpose/Goals	3.4-1
	3.4.2 Program Description	3.4-1
	3.4.3 Program Linkages	3.4-2
	3.4.4 Oversight, Management, and Support Responsibilities	3.4-3
	3.4.5 Current Levee Projects	3.4-3
	3.4.5.1 Base Level Protection	3.4-4
	3.4.5.2 Special Improvement Projects	3.4-5
	3.4.5.3 Levee Subsistence Control Plan	3.4-10
	3.4.5.4 Subventions	3.4-11
	3.4.5.5 Levee Emergency Response Plan	3.4-12
	3.4.5.6 Risk Assessment	3.4-13
2.5	3.4.5.7 Beneficial Reuse of Dredged Material	3.4-14
3.5	Ecosystem Restoration Program	
	3.5.1 Purpose	
	3.5.2 Program Description	
	3.5.3 FRP Strategic Goals	3 5_3

01/31/02 Draft Delta Regional Implementation Plan

	3.5.4 ERP Implementation Strategy	3.5-4
	3.5.5 Single Blueprint for Restoration and Recovery: MSCS-ERP Milestones	3.5-6
	3.5.6 Delta ERP Habitat Restoration Targets	3.5.6
	3.5.7 Oversight, Management, and Support Responsibilities	3.5.8
	3.5.8 Delta Ecosystem Restoration Implementation Plan	
	3.5.8.1 Work Plan for the Delta Ecosystem Restoration Implementation Plan	3.5-9
	3.5.8.2 Draft Implementation Plan Table of Contents	3.5-10
	3.5.8.3 Application of the Plan	3.5-10
	3.5.8.4 Plan Implementation	3.5-11
	3.5.8-5 Plan Preparation Task Descriptions	3.5-11
	3.5.8.6 Plan Preparation Management	3.5-13
	3.5.9 Funding	
	3.5.10 Current ERP Projects	3.5-14
3.6	Science Program	3.6-1
	3.6.1 Purpose/Goals	3.6-1
	3.6.2 Program Description	3.6-1
	3.6.3 Program Management	3.6-2
	3.6.4 CALFED Science Program Implementation in the Delta	3.6-3
	3.6.5 CALFED Science Needs in the Delta and Bay Region	
	3.6.6 Minitoring and Assessment	
	3.6.7 Science Indicators and Performance Measures	
3.7.	Integrating Critical Land Use Activities within the Delta	3.7-1
	3.7.1 Agricultural Land Use and Preservation	
	3.7.1.1 Impacts on Delta Agriculture from CALFED Program Implementation	3.7-2
	3.7.1.2 Ecosystem Restoration Program	3.7-3
	3.7.1.3 Levee System Integrity Program	3.7-4
	3.7.1.4 Storage Program	3.7-4
	3.7.1.5 Conveyance Program	3.7-5
	3.7.1.6 Agricultural Mitigation Measures	3.7-5
	3.7.2 Recreation Development	
	3.7.2.1 Recreation Mitigation Measures	3.7-8
	3.7.2.2 Scoping for the Delta Recreation Master Plan3.7.2.3 Delta Recreation Master Plan	3.7-9 3.7-10
3.8	Scheduling Logic and Phasing of Work	3.8-1
3.9	Program Costs	
3.10	Program Tracking System	3.10-1